

### **REMARKS**

The Official Action dated July 29, 2003, and the Advisory Action dated January 12, 2004, have been received and their contents carefully noted. Filed concurrently herewith is a *Request for Third-Month Extension of Time*, which extends the shortened statutory period for response to January 29, 2004. Also, filed concurrently herewith is a *Request for Continued Examination*. Accordingly, the Applicants respectfully submit that this response is being timely filed.

The Applicants note with appreciation the consideration of the Information Disclosure Statements filed on June 9, 2000, and May 2, 2002. However, the Applicants again note that the IDS filed on March 2, 1999, has not been acknowledged. The Applicants respectfully submit that the above-referenced IDS fully complies with 37 CFR 1.98 and should be considered by the Examiner. The Applicants respectfully request that the Examiner provide an initialed copy of the Form PTO-1449 evidencing consideration of the above-referenced IDS.

Claims 5-9, 16-18, 20-22, 24-38 and 40-44 are pending in the present application, of which claims 5, 7, 16, 20 and 40-43 are independent. Independent claims 7 and 42 have been amended to better recite the features of the present invention. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 2 of the Official Action dated July 29, 2003, and the Advisory Action dated January 12, 2004, reject claims 5-9, 16-18, 20-22, 24-38 and 40-44 as anticipated by U.S. Patent No. 6,087,679 to Yamazaki et al. The Applicants respectfully traverse the rejection because the Official Action has not established an anticipation rejection.

As stated in MPEP § 2131, to establish an anticipation rejection, each and every element as set forth in the claim must be described either expressly or inherently in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

The Applicants respectfully submit that an anticipation rejection cannot be maintained against the independent claims of the present invention. Yamazaki does not teach all the elements of the independent claims, either explicitly or inherently.

With respect to independent claims 5, 16, 40 and 41, the Advisory Action asserts that the Applicants' argument "that [Yamazaki] '679 fails to teach a gate insulating film over the gate electrode ... is not persuasive" (Continuation Sheet) and cites Fig. 6A, non-porous anodic oxide film 512 and porous anodic oxide film 511 of Yamazaki. The Applicants respectfully disagree and traverse the above assertions. The Applicants respectfully submit that if the non-porous anodic oxide film 512 and the porous anodic oxide film 511 of Fig. 6A of Yamazaki are relied upon by the Official Action to teach a gate insulating film over a gate electrode 513, then Yamazaki appears to disclose the steps of forming a gate electrode 513 over an insulating surface, forming a gate insulating film 512, 511 over the gate electrode 513 and forming a semiconductor layer 508 under, not over, the gate insulating film 512, 511. Therefore, Yamazaki does not teach, either explicitly or inherently, forming a semiconductor film over a gate insulating film.

With respect to independent claims 7 and 42, the Applicants have amended claims 7 and 42 to recite promoting crystallinity by irradiation of laser light or intense light after removing a film comprising a catalytic element; and adding an impurity to a semiconductor film to form at least one impurity region imparting one conductivity type in the semiconductor film after promoting crystallinity by irradiation of laser light or intense light. Even if, as asserted by the Examiner, laser annealing can be used for crystallizing the amorphous silicon film instead of heat treatment, the Applicants respectfully submit that Yamazaki does not teach, either explicitly or inherently, promoting crystallinity by irradiation of laser light or intense light after removing a film comprising a catalytic element; and adding an impurity to a semiconductor film to form at least one impurity region imparting one conductivity type in the semiconductor film after promoting crystallinity by irradiation of laser light or intense light.

With respect to independent claim 20, the Applicants respectfully submit that Yamazaki does not disclose the steps of the claimed invention. It does not appear that the Advisory Action has addressed the arguments raised in the previous *Response*. The Applicants respectfully submit that Yamazaki does not teach, either explicitly or inherently, the serial steps of independent claim 20, that is forming a semiconductor film comprising amorphous silicon on an insulating surface; forming a film comprising germanium in contact with the semiconductor film by vapor phase deposition with a germanium compound gas; heating the semiconductor film with the film comprising germanium to crystallize the semiconductor film; removing the film comprising germanium from a surface of the semiconductor film without changing a shape of the semiconductor film after heating the semiconductor film; patterning the crystallized semiconductor film into at least one semiconductor island after removing the film comprising germanium; and forming a thin film transistor with the semiconductor island used as at least a channel forming region thereof.

With respect to independent claim 43, the Official Action asserts that Yamazaki teaches that "the patterned active layer shown in Fig. 6C is laser annealed" (Continuation Sheet). The Applicants respectfully disagree and traverse the above assertion. The Applicants respectfully submit that Yamazaki does not teach, either explicitly or inherently, the serial steps of forming a semiconductor film, providing the semiconductor film with a promoting material for facilitating crystallization, crystallizing the semiconductor film by a heat treatment, removing the promoting material, promoting crystallinity by irradiation of laser or intense light and patterning the crystallized semiconductor film.

Since Yamazaki does not teach all the elements of the independent claims, either explicitly or inherently, an anticipation rejection cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 102(e) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,



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